

INFORMATION SHEET

ORDER NO.

THUNDERBOLT WOOD TREATING COMPANY, INC.

LOVALVO LEONARD & GRACE TRUST, LOVALVO FAMILY 2005 TRUST

CLASS II SURFACE IMPOUNDMENT

STANISLAUS COUNTY

Thunderbolt Wood Treating Company, Inc. (facility owner and operator) and Lovalvo Leonard & Grace Trust, Lovalvo Family 2005 Trust (landowner), hereafter referred to jointly as Discharger, submitted a 31 August 2010 Report of Waste Discharge (ROWD) for revision of waste discharge requirements (WDRs) for the Thunderbolt Wood Treating facility in Stanislaus County. The ROWD was submitted pursuant to a 15 June 2010 request by the Executive Officer for a ROWD meeting the requirements of Title 27, California Code of Regulations (CCR) Section 20005, et seq. (Title 27).

The wood treating facility began operating in 1978. The Discharger chemically treats wood to produce lumber and other wood products that are resistant to insects and microbial deterioration. All wood is treated using water-based chemical solutions in pressurized vessels, and five separate chemical processes are used: chromated copper arsenate (CCA), ammonical copper zinc arsenate (ACZA), disodium octaborate tetrahydrate (DOT), alkaline copper quat (ACQ), and phospho ammonium boron (D-Blaze).

The facility is comprised of an office building, chemical process areas, paved wood storage areas, unpaved areas used only for storage of untreated wood, storm water catch basins and sumps, storage tanks, and a lined surface impoundment used to store contaminated storm water prior to treatment and discharge to the sanitary sewer. Constituents of concern for the surface impoundment are pH, electrical conductivity, total nitrogen, ammonia as nitrogen, arsenic, total chromium, hexavalent chromium, and copper.

Previous WDRs Order No. R5-2002-0036 regulated the discharges to the surface impoundment under the "Non15" program. The Discharger has made several improvements to reduce the volume of water and the concentration of contaminants that enter the surface impoundment; however, this revised Order requires that the discharge be regulated in accordance with Title 27 due to concentrations of arsenic and chromium in the water that continue to indicate it is a designated waste. This Order primarily regulates the surface impoundment, but also includes some requirements for a paved and curbed wood storage area for CCA and ACZA treated wood.

The surface impoundment was lined in 1984 and is a double-lined surface impoundment approximately 130 by 170 feet and 21 to 22 feet deep (17 feet below grade and 5 feet above grade). The double liner system is underlain by native clay soil. The total storage capacity at two feet of freeboard is approximately 2.2 million gallons. The components of the liner system are, from top to bottom:

- a) 45-mil scrim-reinforced hypalon geomembrane
- b) 6-inch sand layer (LCRS)
- c) Drainage fabric
- d) 40-mil polyvinyl chloride geomembrane

- e) Drainage fabric
- f) 12-inch compacted clay liner with permeability less than 1×10^{-6} cm/s

The Discharger submitted a water balance for the impoundment in the ROWD. Based on the water balance, this Order requires that the Discharger maintain at least seven feet of freeboard in the surface impoundment. The seven feet of freeboard includes five feet to maintain capacity for the 1,000-year 24 hour storm event of 3.54 inches over the area that drains to the impoundment.

There are several groundwater monitoring wells at the site, only some of which are in the area of the surface impoundment. The Monitoring and Reporting Program (MRP) that is part of this Order requires sampling of the wells around the impoundment, and the background well. The MRP also establishes the method for calculating concentration limits and a resampling procedure for exceedances. The Order also requires the installation of one new well, and a well or wells to replace two other wells that are not constructed properly and are too shallow.

Historical groundwater monitoring at the site indicates impacts to groundwater with chromium and arsenic. This Order does not include requirements related to the existing groundwater contamination since it is already being regulated by the Site Cleanup Program for all areas of the site.

The Discharger submitted cost estimates for clean closure of the impoundment, and for corrective action. As required by Title 27, this Order requires the Discharger to establish and maintain financial assurances with the Central Valley Water Board in the amount of these costs estimates, plus annual adjustments for inflation. A time schedule for establishing financial assurances is included in the Order.

The Discharger has reported that there are no surface water discharges from the site. All storm water runoff is captured in catch basins with sumps and pumped either to tanks for reuse in the wood treating process or routed to the surface impoundment.

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